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Athlete Identity and Satisfaction of Student-Athletes in Selected Universities in Kenya

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Abstract

Strong athlete identity and satisfaction with being an athlete are linked to better performance. This is because student-athletes are more motivated and feel a sense of belonging. However, research on how these factors connect with details like gender or competition level in student-athletes, especially in Kenya, is lacking. Using an analytical cross-sectional design and the Athletic Identity Measurement Scale-Plus (AIMS-Plus) and Athlete Satisfaction Questionnaire (ASQ), this study examined the relationship between athlete identity and satisfaction among university student-athletes in relation to gender, year of study, and level of competition. A total of 309 (52.4% males and 47.6% females) Kenyan university student-athletes participated in the study. Results revealed females had a slightly stronger athlete identity (4.00 ± 0.478) than male student-athletes (3.93 ± 0.503), but there was no significant correlation between gender and athlete identity. Similarly, females had higher athlete satisfaction (4.24 ± 0.443) than male student-athletes (4.09 ± 0.576), and the relationship between gender and athlete satisfaction was statistically significant (p =.017). Investigated demographic characteristics only explained (3.5%) variance in student-athlete identity (R2 adjusted =.035, F (4, 263) = 3.391, p =.010) and (3.2%) in athlete satisfaction (R2 adjusted =.032, F(4,263) = 3.210, p =.013). The study concluded that universities should provide enhanced training facilities, regular competition opportunities, and a supportive environment for athletes in low-level competitions. Future research could address athlete identity beyond demographics such as coach leadership, education goals, team task contribution, and variables that provide a more comprehensive understanding of athletic identity and satisfaction.

Keywords: Student-athlete Identity, Satisfaction, Gender, Competition levels

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INTRODUCTION

Athlete identity (AI) is a construct that is used to describe the extent to which an individual identifies with their athletic role. It refers to the degree to which an individual identifies with and relates to their role as an athlete (Parker et al., 2022), while Athlete Satisfaction (AS) refers to the level of contentment student-athletes have with their sporting ability and the sport (Davis et al., 2019). These are key variables for student-athletes because they affect student-athletes' motivation, social integration, sports performance, and academic performance (Edison et al., 2021). Athlete identity is described as the extent to which an individual identifies with their athletic role. Athlete identity is considered an important construct in sports psychology because it influences an athlete's sense of self-worth, which is developed from their self-reference and perception of other roles. Given its importance, evidence has shown that athlete identity is affected by a range of factors such as competition, training (Turkeli, 2020), and social demographic factors such as gender and academic level of student-athletes (Quinaud et al., 2020). However, most research on this construct focuses on its athlete identity and relationship with factors such as stress and burnout (Lee et al., 2017) and academics (Van Rens et al., 2019). The single-level interrogation by traditional studies on student-athletes suggests a simple test interpretation, which is a limitation to understanding its development and impact on student-athletes.

Athlete identity is a dynamic construct, making it susceptible to personal factors such as gender, academic level, type of sport, and level of competition (Quinaud et al., 2020). In another example, athlete identity has been established to correlate with the level of competition among student-athletes (Edison et al., 2021). The level of competition is viewed as an achievement or lack thereof.

Given the complexity of athlete identity, researchers have attempted to understand its impacts on student-athletes at the sub-component level of exclusivity, self-identity, positive affectivity, negative affectivity, and social identity. For example, Hilliard et al. (2017), when investigating the relationship between athlete identity and student-athletes' beliefs about rehabilitation, established that exclusivity (the extent to which athletes identify with their role) informed their behaviours and correlated with student levels of adherence to the program. Another study examining the athlete identity sub-component of social identity (the degree to which a person sees themselves occupying the role of an athlete) reported that social identity forms the foundation for developing sports groups, behaviours, and support systems for stress appraisal for student-athletes, which is key during their pursuit of sport and academic goals (Rees et al., 2015). However, different studies on this topic hardly investigate athlete identity at the sub-components level, and even the available one reports varying outcomes, suggesting careful interpretation and generalization of their findings due to the different methodologies and measures applied. In Kenya, this area is hardly investigated despite Rintaugu et al., (2020) establishing social identity as a key reason for male university student-athletes participating in college sports, yet Kenya is one of the hosts of prestigious university competitions in Africa, for example, the 10th All Africa University Games.

The athlete satisfaction component represents the level of contentment of student-athletes with their sport and athletic abilities (Davis et al., 2019). Evidence shows that athlete satisfaction is a valuable construct in sports performance and is influenced by a range of factors such as the quality of the relationship with the coach (Davis et al., 2019), the student-athlete's role and engagement in the team (Eys et al., 2007), and a sense of competence, autonomy, and relatedness (Banack et al., 2011). Some studies indicate that social demographic characteristics such as gender, year of study, and level of competition play some roles in student-athlete satisfaction. Foster and Huml (2019) argued that the academic year of student-athletes can influence their satisfaction through pathways such as performance progress, goal achievement, and group integration. Colbort, (2019) posits that potential conflict between academic progress and athlete goals may affect athlete satisfaction, especially among senior student-athletes. Competition level influences athlete satisfaction because of the perceptions associated with competing at different levels. For example, competing at a high level of competition may affect athlete satisfaction because student-athletes associate it with high achievement (Rhind et al., 2011; Unruh et al., 2005).

The reviewed studies demonstrate the importance of social demographic characteristics on student-athlete satisfaction (Colbort, 2019; Foster & Huml, 2019; Rhind et al., 2011; Unruh et al., 2005); however, they are often examined individually, and a few investigated how these factors affect student-athlete satisfaction simultaneously. Additionally, few researchers have investigated the impact of these social demographic characteristics on both athlete identity and athlete satisfaction at an in-depth level (sub-component levels of athlete identity and athlete satisfaction scales). In addition to the identified limitations in the existing literature, the preliminary review demonstrates little attention to university student-athlete identity and satisfaction in Kenya, yet their influence on sport performance has been reported in other works (Contreira et al., 2023; Edison et al., 2021; Foster & Huml, 2019; Martin & Fogarty, 2014). Available studies also reveal variation in methodological approach, for example, focusing on different measures leading to differences in outcomes, hence contextual gaps. In light of these findings, the study aimed to investigate the athlete identity and satisfaction of student-athletes at selected universities in Kenya. The main objective is to examine the relationship between athlete identity, satisfaction, and demographics (gender, year of study, and level of competition) of university student-athletes in selected Kenyan universities.

METHOD

Study Design

The study used a cross-sectional analytical study design targeting 2254 (1219 males and 1035 females) student-athletes competing in various university sports championships, e.g., East Africa University Sports Federation (EAUSF), Kenya Universities Sports Association (KUSA), and Kenya National Federation Leagues (KNFL). The championships included athletics, badminton, basketball, football, handball, hockey, netball, table tennis, tennis, volleyball, skating, rugby, lawn tennis, softball, and chess. The cross-sectional analytical approach was selected because it allowed the study to collect data from a group of student-athletes at a certain point in time while allowing multiple variables at the time of the data collection (Schmidt & Brown, 2019). Data was collected from 10 out of 47 counties in Kenya, namely Nairobi, Mombasa, Nakuru, Kiambu, Kisii, Siaya, Uasin-Gishu, Meru, Kilifi, and Embu. Selected counties are home to major universities with high sports participation in the Kenya University Sports Association Games.

Sampling

Using Yamane's (1967) formula, a sample size of 340 (184 males, 156 females) was established. A stratified random sampling was utilized where the type of sport was used as strata to guide the proportionate selection of student-athlete participants to be included in the sample. Stratification by type of sport ensured each sport in the championship was represented in the study sample.

Data Collection Instrumens

Data was collected using a self-report questionnaire, which was divided into three sections. Section A collected social demographic information on gender, type of sport, year of study, and level of competition. Section B sought to collect information examining athlete identity using the Athlete Identity Measurement Scale-Plus (AIMS-Plus). AIMS-Plus had 24 statements measured on a 5-point Likert scale (1 =I strongly disagree, 2 = disagree, 3 = neutral/agree nor disagree, 4 = agree, and 5 = strongly agree). The scoring entailed participants selecting by marking or putting a tick on the option (1–5) that represented their level of agreement on each statement that represents their view on how they perceive their importance in various aspects as an athlete. The score of each item was then totaled and converted back to the average (1–5). A score below 2.5 represented a weak athlete identity, while scores of 2.5 and above showed an average to strong athlete identity. The sub-components of AIMS-Plus were also examined. The five sub-components include self-identity (statements 1, 2, 7, 11, 13), positive affectivity (12, 14, 18, 21), negative affectivity (9, 10, 17, 22), social identity (4, 16, 19, 20, 23), and exclusivity (3, 5, 6, 8, 15, 24). Previous studies have reported high reliability of the AIMS-Plus, with Cronbach's alphas of 0.851 and 0.874 (Hagiwara & Isogai, 2013). In this study, the AIMS-Plus gave a Cronbach alpha score of 0.83.

Section C examined athlete satisfaction using the Athlete Satisfaction Questionnaire (ASQ). ASQ contained 25 items measured on a 5-point Likert scale (1-extremely dissatisfied, 2-moderately dissatisfied, 3-neutral, 4-moderately satisfied, 5- satisfied). Participants scored by marking or ticking the option (1-5) that best represented their satisfaction level on each of the

25 statements in this section. The scores on each statement were summed up and converted back to the average which ranged from (1-5). A score of below 2.5 reflected participant low athlete satisfaction while a score of 2.5 and above showed moderate to high athlete satisfaction. ASQ sub-components were also examined. The sub-scale included team task contributions, individual performance recognition, and the role of the coach, personal dedication, and team support affiliation. ASQ validity has been found sound to assess athlete satisfaction in previous studies (Jowett & Ntoumanis, 2004; Riemer & Chelladurai, 1998; Smith & Cushion, 2006). In the present study, ASQ yielded a high internal consistency with a score of 0.874 using a test-retest method. To enhance the robustness of the data collection instrument, it was reviewed by two senior lecturers in Exercise and Sport Science. Some of the recommended changes included converting the total scores back to the average to make it consistent with other studies. Reviewers also suggested including the sub-components of athlete identity and satisfaction to gather in-depth insight on the subject.

Ethical Approval

The study was conducted in line with the set protocols for studies involving human subjects. The study was approved by the Kenya National Commission of Science Technology and Innovation, the protocol number (NACOSTI/P/22/18075), and the University Ethics Review Committee (PKU/2511/11638).

Data Collection Procedure

Once all authorizations were given, the sports and games offices in the targeted universities were informed through their representatives, and consent to participate in the study was obtained. Student-athlete participants were recruited through presentations and information sessions held during team meetings before training or competitions. The issue of confidentiality, rights of participants, and data privacy was discussed before issuing consent forms. Once individuals agreed to participate, a written consent was issued and once they signed a questionnaire was administered with the assistance of coaches and team captains. The questionnaire was returned immediately upon completion.

Statistical Analysis

Descriptive statistics of mean and standard deviation were used to determine the status of athlete identity and athlete satisfaction in relation to gender, year of study, and level of competition of responded university student-athletes. Inferential statistics and Pearson correlation were used to examine the relationship between athlete identity and satisfaction about student-athlete demographic characteristics (gender, year of study, and level of competition). Linear multiple regression was used to determine whether demographic characteristics had a significant influence on athlete identity and athlete satisfaction among selected Kenyan University student-athletes.

FINDINGS

Table 1 shows a summary of the results from athlete identity questionnaire including its sub-components by gender

Table 1. Correlation between athlete identity, subcomponents with gender of student-athletes

	Gender	Mean	Sd.	df	r	*p*
AIMS	Female	4.00	0.478	308	- 0.064	.264
	Male	3.93	0.503			
Self-identity	Female	4.26	0.507	308	-0.171	.003
	Male	4.04	0.707			
Positive affectivity	Female	4.37	0.518	308	-0.001	.991
	Male	4.37	0.607			
Negative affectivity	Female	4.15	0.671	308	-0.003	.955
	Male	4.14	0.711			
Social identity	Female	3.55	0.720	308	-0.002	.974
	Male	3.55	0.698			
Exclusivity	female	3.91	0.625	308	-0.078	.172
	male	3.81	0.668			

Results in Table 1 reveal that athlete identity of Kenya university student-athlete is good and almost similar between males (3.93 ± 0.503) and females (4.00 ± 0.478). It demonstrates that university student-athletes have high positive affectivity, females (4.37 ± 0.518) and males (4.37 ± 0.671) but low on social identity component, females (3.55 ± 0.720) and males (3.55 ± 0.698). Data in Table 1 also implies a weak, negative, and non-significant relationship between athlete identity (r (308) = -0.064, *p* = .264). Nonetheless, there is a significant association between self-identity and gender of student-athletes (r (308) = -0.171, *p* = .003)

Table 2. Correlation between athlete identity, subcomponents with year of study of student-athletes

	Year 1 (n = 89)		Year 2 (n = 87)		Year 3 (n = 69)		Year 4 (n = 62)		Year 5 (n = 1)		Year 6 (n = 1)				
Components	Mean	Sd.	Mean	Sd.	Mean	Sd.	Mean	Sd.	Mean	Sd.	Mean	Sd.	df	r	*p*
AIMS	3.98	0.494	3.89	0.474	4.00	0.525	3.97	0.474	4.16	-	4.72	-	308	0.034	.555
Self-identity	4.03	0.668	4.19	0.548	4.16	0.755	4.22	0.500	4.25	-	5.00	-	308	0.110	.054
Positive affectivity	4.38	0.579	4.35	0.656	4.41	0.514	4.35	0.469	4.25	-	5.00	-	308	0.009	.875
Negative affectivity	4.17	0.670	4.14	0.672	4.18	0.591	4.08	0.854	4.25	-	4.50	-	308	-0.026	.653
Social identity	3.68	0.661	3.405	0.728	3.57	0.801	3.51	0.604	4.00	-	4.20	-	308	-0.045	.428
Exclusivity	3.86	0.687	3.72	0.610	3.95	0.669	3.94	0.592	4.17	-	5.00	-	308	0.094	.100

The table above demonstrates that student-athletes had high and almost similar athlete identity across the academic year of study. However, social identity records the lowest among the five sub-components of athlete identity student-athletes regardless of their academic year of study, for example, first years (3.68 ± 0.661). Pearson correlation shows no significant relationship between athlete identity and student-athlete year of study.

Table 3. Correlation between athlete identity, subcomponents with level of competition of student-athletes

Components	EAU Games (n = 21)		KNF (n = 53)		KUSA (n = 170)		Inter-school (n = 24)				
	Mean	Sd.	Mean	Sd.	Mean	Sd.	Mean	Sd.	df	r	p
AIMS	3.96	0.472	4.16	0.546	3.91	0.488	3.78	0.503	266	-0.158	.010
Self-identity	4.11	0.535	4.40	0.642	4.08	0.646	3.98	0.629	266	-0.133	.030
Positive affectivity	4.23	0.734	4.55	0.561	4.35	0.569	4.25	0.612	266	-0.055	.374
Negative affectivity	4.25	0.647	4.26	0.681	4.09	0.715	4.02	0.714	266	-0.106	.083
Social identity	3.53	0.637	3.77	0.748	3.51	0.736	3.31	0.703	266	-0.118	.054
Exclusivity	3.93	0.636	4.07	0.689	3.80	0.636	3.63	0.683	266	-0.161	.008

Student-athletes competing at KNF have strong athlete identity (4.16 ± 0.546) while student-athletes competing at KUSA showed the lowest athlete identity (3.78 ± 0.503). Table 4 also reveals that social identity as the weakest among the five sub-components of athlete identity, for example, East African University Games (3.53 ± 0.637).

A linear multiple regression was performed to determine the influence of demographic characteristics (level of competition, year of study, gender) on student-athlete identity.

Table 4. Multiple regression summary for influence of level of competition, academic year of study, and gender on athletes identity

Predictors	B	*t*	*p*	95% CI
Highest level of competition	-.168	-2.561	0.011	[-.207, -.027]
Academic year of study	-.172	-2.019	.045	[-.152, -.002]
Gender	-.074	-1.212	.226	[-.198, .047]

Note: $R^2_{adjusted}$ = .035, (N= 309, p = .010), CI = confidence interval for β. significant levels at $p < .05$

From Table 5, only 3.5% (R^2 adjusted = .035) of the variance of athlete identity can be explained by demographic characteristics, level of competition, academic year of study, and gender. Collectively, included demographic characteristics in the model significantly influence athlete identity ($R^2_{adjusted}$ = .035, F (4, 263) = 3.391, p = .010). Table 5 further indicates that level of competition, academic year of study, and predicted athlete identity of student-athletes ($p < .05$).

Correlation between Athlete Satisfaction and Demographic Characteristics

Student-athlete satisfaction was investigated using a 25 items ASQ. Participants answered by marking on a 5-point Likert scale (1-5) where 1 represented extremely dissatisfied, 2 moderately dissatisfied, 3 neutral, 4 moderately satisfied, and 5 satisfied which corresponded with the participants satisfaction on various aspect assessed by the ASQ.

Table 5. Correlation between athlete satisfaction, subcomponents with gender of student-athletes

	Gender	Mean	Sd.	df	r	*p*
ASQ	Female	4.24	0.443	308	-0.135	.017
	Male	4.09	0.576			
Team task contribution support	Female	4.20	0.557	308	0.847	.000
	Male	4.04	0.776			
Individual performance recognition	Female	4.17	0.528	308	0.780	.000
	Male	4.02	0.644			
Role of coach	Female	4.10	0.648	308	0.764	.000
	Male	3.97	0.909			
Personal dedication	Female	4.01	0.532	308	0.761	.000
	Male	4.30	0.609			
Team support affiliation	Female	4.32	0.560	308	0.775	.000
	Male	4.17	0.743			

According to Table 6 student-athletes' participants have high athlete satisfaction with females showing higher athlete satisfaction (4.24 ± 0.443) compared to male student-athletes (4.09 ± 0.576). At sub-component level of ASQ scale, female student-athletes have high team support affiliation (4.32 ± 0.560) but demonstrates low personal dedication (4.01 ± 0.532). Contrarily, male student-athletes indicates high personal dedication (4.30 ± 0.609) but low on role of the

coach (3.97 ± 0.909). Pearson correlation revealed a weak positive correlation between athlete satisfaction and gender even at its sub-component level ($p < .001$).

Table 6. Correlation between athlete satisfaction, subcomponents with year of study of student-athletes

Components	Year 1 (n = 89)		Year 2 (n = 87)		Year 3 (n = 69)		Year 4 (n = 62)		Year 5 (n = 1)		Year 6 (n = 1)				
	Mean	Sd.	Mean	Sd.	Mean	Sd.	Mean	Sd.	Mean	Sd.	Mean	Sd.	Df	r	*p*
ASQ	4.23	0.521	4.10	0.557	4.18	0.539	4.14	0.449	3.99	-	4.75	-	308	-0.030	.600
Team task contribution	4.16	0.658	4.01	0.719	4.10	0.776	4.20	0.551	4.17	-	5.00	-	308	0.038	.507
Individual performance recognition	4.14	0.543	4.09	0.653	4.09	0.671	4.04	0.499	3.71	-	4.43	-	308	-0.055	.334
Role of coach	4.16	0.686	3.95	0.824	4.03	0.813	3.95	0.881	4.00	-	5.00	-	308	-0.065	.251
Personal dedication	4.33	0.610	4.36	0.570	4.32	0.608	4.38	0.499	3.75	-	5.00	-	308	0.021	.707
Team support affiliation	4.33	0.643	4.10	0.699	4.39	0.583	4.13	0.702	4.33	-	4.33		308	-0.047	.408

Student-athlete participants have high and almost similar athlete satisfaction across years of study, but first years show slightly higher athlete satisfaction (4.23 ± 0.521). Table 8 suggests that first year student-athlete have low individual performance recognition (4.14 ± 0.543), while subsequent years, second (3.95 ± 0.824), third (4.03 ± 0.813), and fourth years (3.95 ± 0.881) report low satisfaction with the role of the coach. Pearson correlation shows no significant relationship between athlete satisfaction with student-athletes year of study.

Table 7. Correlation between athlete satisfaction, subcomponents with level of competition of student-athletes

Components	EAU Games (n = 21)		KNF (n = 53)		KUSA (n = 170)		Inter-schools (n = 24)				
	Mean	Std.	Mean	Std.	Mean	Std.	Mean	Std.	df	r	*p*
ASQ	4.20	0.467	4.36	0.529	4.10	0.530	4.08	0.531	266	-0.138	.023
Team task contribution support	4.19	0.487	4.31	0.82	4.05	0.669	3.95	0.691	266	-0.133	.029
Individual performance recognition	4.10	0.434	4.37	0.521	4.01	0.608	4.02	0.596	266	-0.150	.014
Role of coach	4.01	0.736	4.11	1.05	4.01	0.748	3.93	0.626	266	-0.040	.518
Personal dedication	4.43	0.448	4.48	0.645	4.30	0.583	4.31	0.644	266	-0.096	.117
Team support affiliation	4.29	0.644	4.53	0.635	4.14	0.699	4.18	0.564	266	-0.143	.019

Table 7 indicates that student-athlete participants competing at interschool and college competitions had the lowest satisfaction level (4.08 ± 0.531). The low of coach has the lowest satisfaction in all levels of competition, for example, East African Games, (4.01 ± 0.736), Interschool/college (3.93 ± 0.626). There is a negative and a significant correlation between athlete satisfaction and student-athlete level of competition ($r (266) = -0.138$, $p = .023$). Team task contribution, individual performance recognition, and team support affiliation have a negative and significant relationship with the level of competition of student-athletes ($p < .05$).

A linear multiple regression was done to assess whether demographic characteristics (level of competition, year of study, gender) predicted athlete satisfaction of university student-athletes.

Table 8. Multiple Regression Summary for influence of level of competition, academic year of study, and gender on athlete satisfaction

Predictors	**β**	***T***	***P***	**95% CI**
Highest level of competition	-0.179	-2.727	0.007	[-.207, -.027]
Academic year of study	-0.088	-1.035	0.302	[-.152, -.002]
Gender	-0.155	-2.545	0.012	[-.198, .047]

Note. $R^2_{adjusted} = .032$, (N= 309, $p = .010$), CI = confidence interval for β.

Table 10 suggests that demographic characteristics (level of competition, academic year of study, gender) only explain a small variance of athlete satisfaction 3.2% (R^2 adjusted = .032).

Mutually, level of competition, academic year of study, and gender significantly predicted athlete satisfaction of student-athlete participants ($R^2_{adjusted}$ = .032, F (4, 263) = 3.210, p = .013). However, only level of competition and gender predicted athlete satisfaction (p = .007), and (p = .012) respectively.

DISCUSSION

The study sought to determine the relationship between athlete identity and satisfaction in relation to demographics such as gender, year of study, and level of competition among university student-athletes. These variables are considered very important in understanding the factors that contribute to athlete satisfaction and well-being. Athletes who have a strong athlete identity are more likely to be satisfied with their sports participation and overall well-being. Sports practitioners can use this information to create programs and interventions that support the development of strong athlete identities among their athletes. This has a bearing on coaches since it helps them develop more effective coaching strategies that promote athlete satisfaction and well-being, set realistic goals, and manage stress. Sports practitioners can use the findings of this study to identify athletes who may be at risk for burnout and to create a more positive and supportive athletic environment for them.

The findings on athlete identity suggested that male and female student-athletes possess strong athlete identity although female student-athletes had slightly higher athlete identity. The findings align with a study by López et al., (2015) that established female athletes had high athlete identity. However, these findings contradicted Şekeroğlu (2017) study which found males to possess high athlete identity, and a significant difference existed between male and female athletes unlike in this study where there was no significant relationship between gender and athlete identity. The difference in findings is suggested to arise from variations in the variable measured as well as the methodology applied (e.g., literature review- Şekeroğlu (2017) and cross-sectional study-present study) between the two studies. The finding implied a correlation between self-identity and gender (p=.003) where male student-athletes demonstrated relatively low on this construct (3.93 ± 0.503) (Table 1).

These findings infer that student-athletes view themselves as athlete vary and male student-athletes have a relatively weak self-identity. Overall, at the subcomponent level of athlete identity, the findings showed a similar trend where male and female student-athletes had high positive affectivity and low social identity. Despite the limited literature for comparison on these constructs, Knudsen et al., (2020) stressed the significance of positive affectivity in college sports as it reveals positive attitudes of students which they experience from their athletic identity. Positive affectivity influences the cheerfulness, enthusiasm, and pride of student-athletes (Waner, 2021). Based on the present study findings it can be suggested that both male and female student-athletes have a positive perception, satisfaction, and fulfillment drawn from being athletes. However, they have yet to see themselves as part of a team or university sports program as indicated by low social identity.

A negative and significant relationship between the level of competition and athlete identity was established (p =.010) among the student-athletes who responded, with athletes competing

at high-level competitions reporting high athlete identity. The finding suggested that competing in high-level competitions (e.g., Kenya National Federations, East Africa Games) was viewed as prestigious and consequently high athlete identity. Related findings were reported by Ahmadabadi et al., (2014) and Quinaud et al., (2020). At the sub-component level, a negative and significant relationship was established between self-identity ($p = 0.030$), exclusivity ($p = .008$), and level of competition. Regarding self-identity, results implied that student-athletes competing in low-level competitions (e.g., interschool games) were affected by dual-role conflict more than student-athletes competing at high levels. The findings also alluded that student-athletes competing in low-level competitions were less committed to their athlete role (exclusivity) compared to athletes competing in high levels.

Demographic characteristics (level of competition, year of study and gender) explained a small proportion (3.5%) of change in athlete identity of participated Kenya university student-athletes. Furthermore, student-athletes level of competition and year of study predicted athlete identity. Despite scarce empirical evidence for comparison, these results suggest there are other factors (not evaluated in this study) affecting athlete identity. Studies on athlete identity have shown that athlete identity is a dynamic construct and is susceptible to various factors among other athlete's skills, experience, confidence (Carless & Douglas, 2013) career prospects, and education (Quinaud et al., 2020). The findings imply that although investigated demographic factors have a role in the formation of student-athlete identity, its development is multifaceted and multiple factors play valuable roles in its formation.

The findings on athlete satisfaction by gender revealed female student-athlete satisfaction was somewhat higher than their male counterparts and the relationship was significant ($p = .017$). The findings were incongruent with Dorsch et al., (2009) and Harwood et al., (2000) that reported male athletes have high athlete satisfaction. However, differences in findings were ascribed to different measures involved, for example, Dorsch et al., (2009) investigated athlete satisfaction by examining the source of satisfaction whereas Harwood et al., (2000) assessed student-athlete satisfaction about competence. However, the findings of this study were consistent with a study by Smucker et al., (2010) which found that female student-athletes expressed higher levels of satisfaction particularly with their coach. At the sub-component level, the findings demonstrated a weak but significant relationship between genders on all the facets ($p < .05$).

It was established that female student-athletes support good team support affiliation but show low personal dedication. Contrarily, male student-athletes demonstrated high personal dedication but showed low satisfaction with the role of coach. The findings infer that participated female student-athlete satisfaction is due to good team support that informs solidarity, encouragement, and skill development. Good team support enhances athlete's self-esteem, confidence, and mental wellness which are valuable in promoting athlete satisfaction. The low personal dedication reported by participating female student-athletes suggests inadequate determination and drive in their role as athletes. Regarding male student-athletes, their athlete satisfaction is affected by the role of coach, but they show high enthusiasm (high score on personal dedication). It is therefore imperative for coaches to provide more support (psychological support, performance analysis, evaluation) to athletes besides skills

development to enhance athlete satisfaction (Banwell and Kerr, 2016). Coaches also need to pay attention to their relationship with athletes because it affects athletes' behaviors and subsequently performance.

The finding on athlete satisfaction and level of competition of student-athletes described that athlete satisfaction increased as the competition level was perceived prestigious, and the relationship was significant. Related findings were reported by Jones (2012) and Swindell et al., (2019). At the sub-component levels team task contribution support and individual performance returned a negative but significant relationship with the level of competition. From these findings it can be argued that participating university student-athletes competing at a perceived low level of competition (KUSA and interschool competitions) are affected more by team support, collaboration, and cohesion (team task contribution support) and incentives or recognition (individual performance recognition) than those competing at high level of competition such as (Kenya federations, East Africa University Games).

The influence of examined demographic characteristics was found to explain only a 3.2% change in student-athlete satisfaction and only level of competition ($p = .007$) and gender ($p = .012$) predicted athlete satisfaction of participating Kenya University student-athletes. Despite the limited literature available evidence on the subject indicates other variables such as goal achievement, team environment, and mental wellness can impact student-athlete satisfaction (Foster & Huml, 2019; Quinaud et al., 2020). Due to scarce literature in this area, these findings should be interpreted with caution.

Conclusions and Recommendations

Based on the findings of the study, it can be concluded that athlete identity is similar among male and female student-athletes. Male student-athletes tend to have a weaker self-identity. The study also concludes that student-athletes in low-level competitions possess a weaker sense of identity. Furthermore, the study revealed a gender-based athlete satisfaction difference, with female student-athletes reporting higher satisfaction. University sports departments and programs should work towards equitable treatment, offering access to training facilities and higher-level competitions for female athletes to counter existing social expectations. To build on these findings, future studies should delve into athlete identity beyond demographic factors. Exploring coach leadership, education goals, injuries, and other variables can provide a more comprehensive understanding of athletic identity and satisfaction and add to the limited literature, especially in Kenya.

Conflicts of Interest: The authors declare that they have no conflict of interest in relation to this manuscript.

Authors' Contribution: Study Design- IKK & FMM; Data Collection-IKK, Statistical Analysis and Manuscript Preparation-IKK, FMM, ERG & AWK. All authors read and approved of the final manuscript.

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